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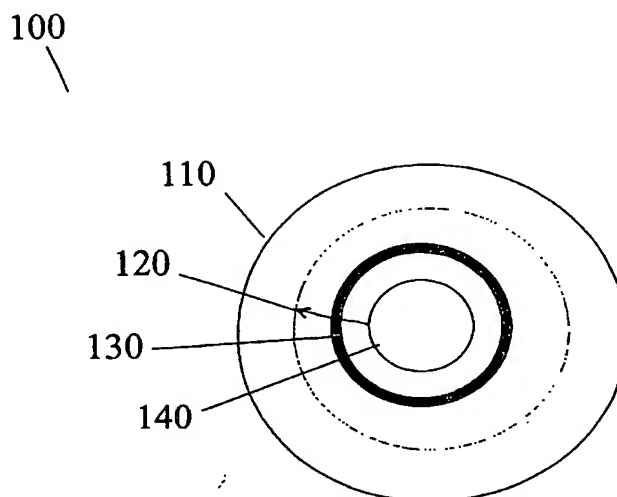
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- Published:**  
— *with international search report*

[Continued on next page]

(54) Title: **MYOPIA CORRECTION ENHANCING BIODYNAMIC ABLATION**



(57) Abstract: This invention is directed to a method for providing a LASIK or a LASEK myopia vision correction, and to a medium that has stored therein an instruction for directing a laser vision correcting laser platform to deliver a controlled biodynamic ablation according to the invention. A known biodynamic response of the eye is induced by performing a controlled laser ablation in a cornea of the eye outside of an optical zone for the nominal ablation in a laser vision correction surgery. An ablation ring, or portion thereof, outside of the optical zone produces a biodynamic flattening of the central region of the cornea which in turn provides for a decreased depth of volumetric ablation to correct a myopic refractive defect of the eye. Such controlled biodynamic flattening may provide the opportunity for laser vision correction in patients whose corneas would otherwise be too thin post-operatively to warrant laser vision correction.

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*For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.*

## A. CLASSIFICATION OF SUBJECT MATTER

IPC 7 A61F9/014

According to International Patent Classification (IPC) or to both national classification and IPC

## B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC 7 A61F

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

EPO-Internal, BIOSIS, WPI Data

## C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	US 6 302 877 B1 (RUIZ LUIS ANTONIO) 16 October 2001 (2001-10-16) column 6, line 32 -column 7, line 36 column 9, line 5 - line 13 column 11, line 8 - line 28 column 12, line 53 -column 13, line 39 column 17, line 45 - line 60; claims 1-4,11,13,14,16-18,22,24,26,27,29; figures 3,4,5A ---	
A	US 6 193 710 B1 (LEMBERG VLADIMIR) 27 February 2001 (2001-02-27) column 2, line 56 -column 3, line 11 column 5, line 53 - line 67 column 8, line 1 - line 14 column 10, line 1 - line 33; claims 1,2,5; figures 1,7 --- -/--	

☒ Further documents are listed in the continuation of box C.☒ Patent family members are listed in annex.

## \* Special categories of cited documents:

- \*A\* document defining the general state of the art which is not considered to be of particular relevance
- \*E\* earlier document but published on or after the international filing date
- \*L\* document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)
- \*O\* document referring to an oral disclosure, use, exhibition or other means
- \*P\* document published prior to the international filing date but, later than the priority date claimed

- \*T\* later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
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- \*Y\* document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.
- \*G\* document member of the same patent family

Date of the actual completion of the international search

14 October 2003

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22/10/2003

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## C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	<p>WO 01 28478 A (HOHLA KRISTIAN ;TECHNOLAS GMBH OPHTHALMOLOGISC (DE); TOENNIES ROLA) 26 April 2001 (2001-04-26) cited in the application page 2, line 9 - line 20 page 7, line 26 -page 8, line 2; figures 9-14</p> <p>-----</p>	

# INTERNATIONAL SEARCH REPORT

In application No.  
PCT/EP 03/06778

## Box I Observations where certain claims were found unsearchable (Continuation of item 1 of first sheet)

This International Search Report has not been established in respect of certain claims under Article 17(2)(a) for the following reasons:

1. ☒ Claims Nos.: 1-36  
because they relate to subject matter not required to be searched by this Authority, namely:  
see FURTHER INFORMATION sheet PCT/ISA/210
2. ☐ Claims Nos.:  
because they relate to parts of the International Application that do not comply with the prescribed requirements to such an extent that no meaningful International Search can be carried out, specifically:
3. ☐ Claims Nos.:  
because they are dependent claims and are not drafted in accordance with the second and third sentences of Rule 6.4(a).

## Box II Observations where unity of invention is lacking (Continuation of item 2 of first sheet)

This International Searching Authority found multiple inventions in this international application, as follows:

1. ☐ As all required additional search fees were timely paid by the applicant, this International Search Report covers all searchable claims.
2. ☐ As all searchable claims could be searched without effort justifying an additional fee, this Authority did not invite payment of any additional fee.
3. ☐ As only some of the required additional search fees were timely paid by the applicant, this International Search Report covers only those claims for which fees were paid, specifically claims Nos.:
4. ☐ No required additional search fees were timely paid by the applicant. Consequently, this International Search Report is restricted to the invention first mentioned in the claims; it is covered by claims Nos.:

Remark on Protest

- ☐ The additional search fees were accompanied by the applicant's protest.
- ☐ No protest accompanied the payment of additional search fees.

FURTHER INFORMATION CONTINUED FROM PCT/ISA/ 210

Continuation of Box I.1

Claims Nos.: 1-36

Rule 39.1(iv) PCT - Claims 1-27 relate to a method for treatment of the human or animal body by surgery and claims 28-36 to a device readable medium with corresponding instructions, thus also excluded from patentability. However claims 1-36 have been searched for the structural features of a corresponding system.

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